

AMENDMENTS TO THE CLAIMS:

1. (Cancelled)

2. (Currently Amended) The power magnetic core according to claim 1, A power magnetic core, having a start section and a termination section, formed therein with lines of magnetic force extending from said start section toward said termination section, the powder magnetic core comprising:

a first portion, having a permeability μ_a , disposed on the shortest magnetic path of said lines of magnetic force connecting said start section and said termination section with each other; and

a second portion, having a permeability μ_b greater than said μ_a , disposed apart from the shortest magnetic path of said lines of magnetic force,

wherein said first portion contains soft magnetic powder having a relatively small first average particle diameter, and said second portion contains soft magnetic powder having a relatively large second average particle diameter, wherein the first average particle diameter is smaller than the second average particle diameter.

3. (Currently Amended) The power magnetic core according to claim 1, A power magnetic core, having a start section and a termination section, formed therein with lines of magnetic force extending from said start section toward said termination section, the powder magnetic core comprising:

a first portion, having a permeability μ_a , disposed on the shortest magnetic path of said lines of magnetic force connecting said start section and said termination section with each other; and

a second portion, having a permeability μ_b greater than said μ_a , disposed apart from the shortest magnetic path of said lines of magnetic force,

wherein said first portion contains iron powder, and said second portion contains at least either Permalloy powder or Sendust powder.

4. (Currently Amended) A stator core prepared by employing [[the]] a power magnetic core according to claim 1, having a start section and a termination section and formed therein with lines of magnetic force extending from said start section toward said termination section, the power magnetic core comprising: a first portion, having a permeability μ_a , disposed on the shortest magnetic path of said lines of magnetic force connecting said start section and said termination section with each other; and a second portion, having a permeability μ_b greater than said μ_a , disposed apart from the shortest magnetic path of said lines of magnetic force,

the stator core comprising:

an annularly extending yoke portion;

a first teeth portion protruding from said yoke portion in the radial direction of said yoke portion so that said start section is disposed on the protruding forward end; and

a second teeth portion, protruding from said yoke portion in the radial direction of said yoke portion so that said termination section is disposed on the protruding forward end, adjacent to said first teeth portion at an interval, wherein

a slot portion is defined in a space enclosed with said first and second teeth portions and said yoke portion, said first portion zonally extends along a peripheral edge of said first teeth portion, said yoke portion, said second teeth portion which define said slot portion and said slot portion, and said second portion extends on the opposite side of said slot portion with respect to said first portion.

5-6. (Cancelled)

7. (Currently Amended) [[The]] A stator core according to claim 6, prepared by employing a power magnetic core having a start section and a termination section and formed therein with lines of magnetic force extending in a prescribed direction from said start section toward said termination section, the power magnetic core comprising: a plurality of flat soft magnetic particles, each including a major axis and a minor axis, bonded to each other, wherein each of said plurality of soft magnetic particles is so bonded that the extensional direction of said major axis and the extensional direction of said lines of magnetic force substantially coincide with each other,

the stator core comprising:

an annularly extending yoke portion; and

a plurality of teeth portions, protruding from said yoke portion in the radial direction of said yoke portion, provided at intervals from each other, wherein each of said plurality of soft magnetic particles forming said yoke portion is so bonded that the extensional direction of said major axis and the extensional circumferential direction of said yoke portion substantially coincide with each other, and

each of said plurality of soft magnetic particles forming said teeth portions is so bonded that the extensional direction of said major axis and the radial direction of said yoke portion substantially coincide with each other,

wherein said teeth portions include forward end portions disposed on the protruding forward ends of said teeth portions to face a separately provided rotor core, and said forward end portions are formed by a plurality of spherical soft magnetic particles bonded to each other.

8. (Currently Amended) [[The]] A stator core according to claim 6, prepared by employing a power magnetic core having a start section and a termination section and formed therein with lines of magnetic force extending in a prescribed direction from said start section toward said termination section, the power magnetic core comprising: a plurality of flat soft magnetic particles, each including a major axis and a minor axis, bonded to each other, wherein each of said plurality of soft magnetic particles is so bonded that the extensional direction of said major axis and the extensional direction of said lines of magnetic force substantially coincide with each other,

the stator core comprising:

an annularly extending yoke portion; and

a plurality of teeth portions, protruding from said yoke portion in the radial direction of said yoke portion, provided at intervals from each other, wherein

each of said plurality of soft magnetic particles forming said yoke portion is so bonded that the extensional direction of said major axis and the extensional circumferential direction of said yoke portion substantially coincide with each other, and

each of said plurality of soft magnetic particles forming said teeth portions is so bonded that the extensional direction of said major axis and the radial direction of said yoke portion substantially coincide with each other,

wherein a slot portion is defined in a space enclosed with two adjacent said teeth portions and said yoke portion, and

said yoke portion and said plurality of teeth portions include a first portion extending along said slot portion and having a permeability μ_a and a second portion extending on the opposite side of said slot portion with respect to said first portion and having a permeability μ_b greater than said μ_a .

9. (Currently Amended) The stator core according to claim 8, wherein:

said plurality of flat soft magnetic particles comprises first flat soft magnetic particles and second flat soft magnetic particles,
said first flat soft magnetic particles define said first portion and have a first [[the]] average length of said major axis, is relatively small in said plurality of flat soft magnetic particles forming said first portion, and

said second flat soft magnetic particles define said second portion and have a second [[the]] average length of said major axis, and
said first average length of said major axis is smaller than said second average length of said axis, is relatively large in said plurality of flat soft magnetic particles forming said second portion.